

Abstract

Provided are optical glass exhibiting a refractive index (n_d) in a range of 1.75 to 1.87, an Abbé number (ν_d) in a range of 30 to 45, and excellent low-temperature softening properties even when not incorporating Ta_2O_5 as well as permitting a low production cost; a precision press molding preform and an optical element comprised of such glass; a method of manufacturing the preform; and a method of manufacturing the optical element. The optical glass comprises, in a molar percent, 30 to 45 percent of B_2O_3 , 2 to 15 percent of SiO_2 , 10 to 20 percent of La_2O_3 , 1 to 10 percent of TiO_2 , 10 to 30 percent of ZnO , 2 to 15 percent of Li_2O , higher than 0 percent and 10 percent or less of WO_3 , 0 to 15 percent of Nb_2O_5 , and 0 to 10 percent of ZrO_2 , wherein the total amount of the above-mentioned components is higher than 95 percent, the glass exhibits a refractive index (n_d) in a range of 1.75 to 1.87, and an Abbé number (ν_d) in a range of 30 to 45. The precision press molding preform and the optical element are comprised of the glass. In the method of manufacturing a precision press molding preform, the preform comprised of the optical glass is formed. The method of manufacturing an optical element employs the precision press molding preform.